Patent claims

1. Method to generate a print image on a carrier material (40),

in that, in a structuring process, ink-attracting regions and ink-repelling regions are generated on the surface of a print carrier (10) corresponding to the structure of the print image to be printed,

ink that adheres to the ink-attracting regions and that is not absorbed by the ink-repelling regions is applied on the surface,

the applied ink is transferred onto the carrier material (40) in the further course,

for structuring, the radiation of a lamp (112, 126) whose radiation is directed via a control element (110, 130) per image point is used,

and in that the control element (110, 130) directs the radiation supplied to it onto the surface of the print carrier dependent on a control signal.

2. Method according to claim 1, in that a plurality of control elements are arranged in at least one line as an array (125, 140) and the structuring ensues line-by-line.

3. Method according to claim 1 or 2, in that a PLZT element (110) is used as a control element.

4. Method according to claim 3, in that the light scatter effect of the PLZT element is used for modulation of the radiation.

5. Method according to any of the preceding claims, in that a plurality of PLZT elements are combined into a single-line or multi-line PLZT array (125).

6. Method according to claim 5, in that an imaging optic (128) that focuses the radiation passed by the respective PLZT element onto the surface of the print carrier (10) is arranged between the PLZT array (125) and the surface of the print carrier (10).

7. Method according to claim 6, in that a SELFOC element (128) is used as an imaging optic.

8. Method according to claim 1 or 2, in that a DMD element is used as a control element.

9. Method according to claim 8, in that a plurality of DMD elements are combined into a single-row or multi-row DMD array (140).

10. Method according to claim 9, in that an imaging optic (146) that focuses the radiation emitted by the respective DMD element onto the surface of the print carrier (10) is arranged between the DMD array (140)and the surface of the print carrier (10).

11. Method according to any of the preceding claims, in that the DMD array (140) or the PLZT array (125) are arranged on a cooled carrier that is cooled by water or gas.

12. Method according to any of the preceding claims, in that a xenon lamp or a halogen lamp is used as a lamp (112, 126, 142).

13. Method according to claim 12, in that the wavelength of the radiation radiated by the lamp is adapted to the fountain solution layer.

14. Method according to any of the preceding claims, in that the wavelength of the radiation of the lamp is adapted to the surface of the print carrier.

15. Device to generate a print image on a carrier material (40),

in which means are provided via which

in a structuring process, ink-attracting regions and ink-repelling regions are generated on the surface of a print carrier (10) corresponding to the structure of the print image to be printed,

ink that adheres to the ink-attracting regions and that is not absorbed by the ink-repelling regions is applied on the surface,

the applied ink is transferred onto the carrier material (40) in the further course,

a lamp (112, 126) whose radiation is directed via a control element (110, 130) per image point is used to structure the radiation,

and via which the control element (110, 130) directs the radiation supplied to it onto the surface of the print carrier dependent on a control signal.

16. Device according to claim 15, in which a plurality of control elements are arranged in at least one line as an array (125, 140) and the structuring ensues line-by-line.

17. Device according to claim 15 or 16, in which a PLZT element (110) is used as a control element.

18. Device according to claim 17, in which the light scatter effect of the PLZT element is used for modulation of the radiation.

19. Device according to any of the preceding claims, in which a plurality of PLZT elements are combined into a single-line or multi-line PLZT array (125).

20. Device according to claim 19, in which an imaging optic (128) that focuses the radiation passed by the respective PLZT element onto the surface of the print carrier (10) is arranged between the PLZT array (125) and the surface of the print carrier (10).

21. Device according to claim 20, in which a SELFOC element (128) is used as an imaging optic.

22. Device according to claim 15 or 16, in which a DMD element is used as a control element.

23. Device according to claim 22, in which a plurality of DMD elements are combined into a single-row or multi-row DMD array (140).

24. Device according to claim 23, in which an imaging optic (146) that focuses the radiation emitted by the respective DMD element onto the surface of the print carrier (10) is arranged between the DMD array (140)and the surface of the print carrier (10).

25. Device according to any of the preceding claims, in which the DMD array (140) or the PLZT array (125) are arranged on a cooled carrier that is cooled by water or gas.

26. Device according to any of the preceding claims, in which a xenon lamp or a halogen lamp is used as a lamp (112, 126, 142).

27. Device according to claim 26, in which the wavelength of the radiation radiated by the lamp is adapted to the fountain solution layer.

28. Device according to any of the preceding claims, in which the wavelength of the radiation of the lamp is adapted to the surface of the print carrier.